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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,969	11/06/2001	Soubhi Abdulkarim	42390P12804	2765
8791	7590	08/31/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			CHEN, TSE W	
			ART UNIT	PAPER NUMBER
			2116	

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,969	ABDULKARIM, SOUBHI	
Examiner	Tse Chen	Art Unit	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

THE MAILING DATE OF THIS COMMUNICATION IS:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

Disposition of Claims

4) Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-25 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 25 March 2002 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 110601 and 053102.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on November 6, 2001 and May 31, 2002, were filed before the mailing date of the first Office Action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

2. The disclosure is objected to because of the missing Brief Summary of the Invention. See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention. Appropriate correction is required.

3. The disclosure is objected to because of the following informalities: the first sentence of paragraph 0025 should be "... comprising one or *more* processes...".

4. Claim 3 is objected to because of the following informalities: "wherein the processing systems" should be "wherein the processing system" in order to avoid any antecedent problems.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Datta et al., U.S. Patent 6393572, hereinafter Datta.

7. In re claim 1, Datta discloses a system [fig.1] comprising:

- A processing system [master codec 121].
- A communication adapter [slave codec 122] adapted to be coupled to a transmission medium [lines 131-134, 140-141].
- Wherein the processing system further comprises:
 - Logic [command processor 230] to receive a sleep message [sleep command] from a power management system [digital controller 110] [col.1.57 – col.2, 1.27; sleep command in frame transmitted by 110].
 - Logic [sleep circuit 290] to place the communication adapter in a sleep state [power down sleep mode] in response to the sleep message [col.2, ll.25-51; 121 ceases bit_clk 131 to 122].

8. As to claim 2, Datta discloses the processing system [master codec 121] that comprises logic [sleep circuit 290] to selectively lower a speed of a clock signal [bit_clk 131] to control the communication adapter [slave codec 122] [col.2, ll.25-51].

9. Claims 8-9, 14-15, and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Datta.

10. In re claim 8, Datta discloses an article comprising a storage medium comprising machine-readable instructions [software, firmware, etc.] stored thereon [col.6, ll.6-31] for:

- Receiving a sleep message [sleep command] [col.4, l.51 – col.5, l.17].
- Placing a communication adapter [codec 320] in a sleep state [power down sleep mode] in response to the sleep message [col.4, l..51 – col.5, l.17].

11. As to claim 9, Datta discloses the storage medium that further comprises machine-readable instructions stored thereon for selectively lowering a speed [cessation] of a clock signal to control the communication adapter [col.4, l.51 – col.5, l.17; col.5, l.49 – col.6, l.5].

12. As to claims 14-15, Datta taught the article; therefore, Datta taught the method in which the article operates with.

13. As to claims 20-21, Datta taught the article and method; therefore, Datta taught the apparatus in which the article and method operates with [col.6, ll.6-31].

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claim 2 above, and further in view of Gregorian et al., U.S. Patent 6452425, hereinafter Gregorian.

16. In re claim3, Datta discloses each and every limitation of the claim as discussed above in reference to claim 2. Datta did not discuss different speeds or protocols.

17. Gregorian discloses a system [col.1, ll.4-17] for selectively lowering the speed of the clock from a first clock speed [e.g., F1] to a second speed [e.g., F2], wherein the first clock speed controls the communication adapter [semiconductor chip] to communicate with a transmission medium [lines for transmitters and receivers] according to a first protocol [e.g., E3] and the second clock speed controls the communication adapter to communicate with the transmission medium according to a second protocol [e.g., DS3] [fig.1,3,5; col.2, 1.42 – col.3, 1.25; col.3, 1.66 – col.4, 1.8; setup configuration that selectively lowers the speed of the clock to associated protocol].

18. It would have been obvious to one of ordinary skill in the art, having the teachings of Datta and Gregorian before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Gregorian, in order to obtain the processing system that comprises logic to selectively lower the speed of the clock from a first clock speed to a second speed, wherein the first clock speed controls the communication adapter to communicate with a transmission medium according to a first communication protocol and the second clock speed controls the communication adapter to communicate with the transmission medium according to a second communication protocol. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to determine the associated protocol for a particular frequency in a communication environment [Gregorian: col.1, ll.4-54].

19. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claim 2 above, and further in view of Huang et al., U.S. Patent 6407595, hereinafter Huang.

20. In re claim 4, Datta discloses each and every limitation of the claim as discussed above in reference to claim 2. Datta did not discuss the details of responding to the sleep message.

21. Huang discloses a system [col.1, ll.4-27] that comprises:

- Logic to determine the speed of the clock signal [frequency F] in response to a message [load signal L; associated with active/sleep] [fig.1, 4, 7; col.5, l.15 – col.6, l.12; col.4, ll.27-61; checks F in response to L for appropriate adjustment].
- Logic to selectively lower the speed of the clock signal [decrease throttling value R to reduce F] if the speed of the clock signal exceeds a predetermined clock speed [FL] [fig.1; col.4, ll.51-61].

22. It would have been obvious to one of ordinary skill in the art, having the teachings of Datta and Huang before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Huang, in order to obtain the processing system that comprises logic to determine the speed of the clock signal in response to the sleep message and logic to selectively lower the speed of the clock signal if the speed of the clock signal exceeds a predetermined clock speed. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to control power consumption in integrated chips [Huang: col.1, ll.10-27].

23. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claim 2 above, and further in view of Gregorian and Huang.

24. In re claim 5, Datta discloses each and every limitation of the claim as discussed above in reference to claim 2. Datta did not discuss different protocols or details of responding to the sleep message.

25. In regards to the different protocols, Gregorian discloses an article [col.1, ll.4-17] for:

- Logic to determine a first communication protocol [e.g., E3; protocol related to speed] being used by the communication adapter [semiconductor chip] [fig.1,3,5; col.2, 1.42 – col.3, 1.25; col.3, 1.66 – col.4, 1.8; determines the protocol via speed].
- Logic to selectively command the communication adapter to use a second communication protocol [e.g., DS3] if a data rate or clock signal frequency [e.g., F2] associated with the first communication protocol exceeds a threshold [threshold 1] [fig.1,3,5; col.2, 1.42 – col.3, 1.25; col.3, 1.66 – col.4, 1.8; setup that selectively configures the speed of the clock with associated protocol after determining where frequency lies in relation to threshold].

26. In regards to the details of responding to the sleep message, Huang discloses an article [col.1, ll.4-27] for:

- Logic to determine a first speed [frequency F] being used by the communication adapter [graphics chip] in response to a message [load signal L] [fig.4, 7; col.5, 1.15 – col.6, 1.12; col.4, ll.27-61; checks F in response to L for appropriate adjustment].
- Logic to selectively command the communication adapter to use a second speed [throttled F] if a data rate or clock signal frequency [F] exceeds a threshold [FL] [col.4, ll.51-61].

27. It would have been obvious to one of ordinary skill in the art, having the teachings of Huang, Datta and Gregorian before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Huang and Gregorian, in order to obtain the processing system that comprises logic to determine a first communication protocol being used

by the communication adapter in response to the sleep message and logic to selectively command the communication adapter to use a second communication protocol if a data rate or clock signal associated with the first communication protocol exceeds a threshold.. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to facilitate communication [Datta: col.1, 1.5 – col.2, 1.5; Gregorian: col.1, ll.4-54] and control power consumption [Datta: col.2, ll.25-39; Huang: col.1, ll.10-27] in digital systems.

28. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claim 1 above, and further in view of Foster, U.S. Patent 6026494.

29. In re claim 6, Datta discloses each and every limitation of the claim as discussed above in reference to claim 1. Datta did not discuss placing the communication adapter in an auto-sensing state in response to a resume message.

30. Foster discloses a system [col.1, ll.6-14] for placing a communication adapter [fig.2; Ethernet transceiver] in an auto-sensing [auto-negotiate] state in response to a resume message [power up after timer2 expires] [col.5, ll.32-62].

31. It would have been obvious to one of ordinary skill in the art, having the teachings of Datta and Foster before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Foster, in order to obtain the processing system that comprises logic to place the communication adapter in an auto-select state in response to a resume message. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to control power consumption in a communication system [Foster: col.1, ll.6-14].

32. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Datta and Gregorian as applied to claim 3 above, and further in view of Greszczuk et al., U.S. Patent 6445730, hereinafter Greszczuk.

33. In re claim 7, Datta and Gregorian disclose each and every limitation of the claim as discussed above in reference to claim 3. Datta and Gregorian did not discuss details of the interconnection between the communication adapter and processing system.

34. Greszczuk discloses a system [col.3, ll.41-60] that comprises a data bus [common telephone line] coupled between the communication adapter [CO transceiver] and the processing system [CPE transceiver], and wherein the processing system further comprises logic to selectively initiate a write command [inherently, some logic in the broadest interpretation is necessary to communicate] on the data bus addressed to the communication adapter specifying a change in one of a power state in response to a sleep message [power down command] [col.6, 1.12 – col.7, 1.13].

35. It would have been obvious to one of ordinary skill in the art, having the teachings of Datta, Gregorian, and Greszczuk before him at the time the invention was made, to modify the teachings of Datta and Gregorian to include the teachings taught by Greszczuk, in order to obtain the system that comprises a data bus coupled between the communication adapter and the processing system, and wherein the processing system further comprises logic to selectively initiate a write command on the data bus addressed to the communication adapter specifying a change in one of a clock signal frequency and a communication protocol in response to the sleep message. One of ordinary skill in the art would have been motivated to make such a combination

as it provides a way to rapidly switch from a sleep mode to a full-on condition [Greszczuk: col.3, ll.10-20].

36. Claims 10, 16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claims 9, 15, and 21 above, and further in view of Gregorian.

37. In re claim 10, Datta discloses each and every limitation of the claim as discussed above in reference to claim 9. Datta did not discuss different speeds or protocols.

38. Gregorian discloses an article [col.1, ll.4-17] for selectively lowering the speed of the clock from a first clock speed [e.g., F1] to a second speed [e.g., F2], wherein the first clock speed controls the communication adapter [semiconductor chip] to communicate with a transmission medium [lines for transmitters and receivers] according to a first protocol [e.g., E3] and the second clock speed controls the communication adapter to communicate with the transmission medium according to a second protocol [e.g., DS3] [fig.1,3,5; col.2, 1.42 – col.3, 1.25; col.3, 1.66 – col.4, 1.8; setup configuration that selectively lowers the speed of the clock to associated protocol].

39. It would have been obvious to one of ordinary skill in the art, having the teachings of Datta and Gregorian before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Gregorian, in order to obtain the article wherein the storage medium further comprises machine-readable instructions stored thereon for selectively lowering the speed of the clock from a first clock speed to a second speed, wherein the first clock speed controls the communication adapter to communicate with a transmission medium according to a first protocol and the second clock speed controls the communication adapter to communicate with the transmission medium according to a second protocol. One of ordinary

skill in the art would have been motivated to make such a combination as it provides a way to determine the associated protocol for a particular frequency in a communication environment [Gregorian: col.1, ll.4-54].

40. As to claim 16, Datta and Georgian taught the article; therefore, Datta and Georgian taught the method in which the article operates with.

41. As to claim 22, Datta and Georgian taught the article and method; therefore, Datta and Georgian taught the apparatus in which the article and method operates with [col.6, ll.6-31].

42. Claims 11, 17, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claims 9, 15, and 21 above, and further in view of Huang.

43. In re claim 11, Datta discloses each and every limitation of the claim as discussed above in reference to claim 9. Datta did not discuss the details of responding to the sleep message.

44. Huang discloses an article [col.1, ll.4-27] for:

- Determining the speed of the clock signal [frequency F] in response to a message [load signal L; associated with active/sleep] [fig.4, 7; col.5, l.15 – col.6, l.12; col.4, ll.27-61; checks F in response to L for appropriate adjustment].
- Selectively lowering the speed of the clock signal [decrease throttling value R to reduce F] if the speed of the clock signal exceeds a predetermined clock speed [FL] [col.4, ll.51-61].

45. It would have been obvious to one of ordinary skill in the art, having the teachings of Datta and Huang before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Huang, in order to obtain the article wherein the storage medium further comprises machine-readable instructions stored thereon for determining the

speed of the clock signal in response to the sleep message; and selectively lowering the speed of the clock signal if the speed of the clock signal exceeds a predetermined clock speed. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to control power consumption in integrated chips [Huang: col.1, ll.10-27].

46. As to claim 17, Datta and Huang taught the article; therefore, Datta and Huang taught the method in which the article operates with.

47. As to claim 23, Datta and Huang taught the article and method; therefore, Datta and Huang taught the apparatus in which the article and method operates with [col.6, ll.6-31].

48. Claims 12, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claims 9, 15, and 21 above, and further in view of Gregorian and Huang.

49. In re claim 12, Datta discloses each and every limitation of the claim as discussed above in reference to claim 9. Datta did not discuss different protocols or details of responding to the sleep message.

50. In regards to the different protocols, Gregorian discloses an article [col.1, ll.4-17] for:

- Determining a first communication protocol [e.g., E3; protocol related to speed] being used by the communication adapter [semiconductor chip] [fig.1,3,5; col.2, 1.42 – col.3, 1.25; col.3, 1.66 – col.4, 1.8; determines the protocol via speed].
- Selectively commanding the communication adapter to use a second communication protocol [e.g., DS3] if a data rate or clock signal frequency [e.g., F2] associated with the first communication protocol exceeds a threshold [threshold 1] [fig.1,3,5; col.2, 1.42 – col.3, 1.25; col.3, 1.66 – col.4, 1.8; setup that selectively configures the speed of the clock with associated protocol after determining where frequency lies in relation to threshold].

51. In regards to the details of responding to the sleep message, Huang discloses an article [col.1, ll.4-27] for:

- Determining a first speed [frequency F] being used by the communication adapter [graphics chip] in response to a message [load signal L] [fig.4, 7; col.5, l.15 – col.6, l.12; col.4, ll.27-61; checks F in response to L for appropriate adjustment].
- Selectively commanding the communication adapter to use a second speed [throttled F] if a data rate or clock signal frequency [F] exceeds a threshold [FL] [col.4, ll.51-61].

52. It would have been obvious to one of ordinary skill in the art, having the teachings of Huang, Datta and Gregorian before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Huang and Gregorian, in order to obtain the article wherein the storage medium further comprises machine-readable instructions stored thereon for determining a first communication protocol being used by the communication adapter in response to the sleep message and selectively commanding the communication adapter to use a second communication protocol if a data rate or clock signal frequency associated with the first communication protocol exceeds a threshold. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to facilitate communication [Datta: col.1, l.5 – col.2, l.5; Gregorian: col.1, ll.4-54] and control power consumption [Datta: col.2, ll.25-39; Huang: col.1, ll.10-27] in digital systems.

53. As to claim 18, Datta, Gregorian, and Huang taught the article; therefore, Datta, Gregorian, and Huang taught the method in which the article operates with.

54. As to claim 24, Datta, Gregorian, and Huang taught the article and method; therefore, Datta, Gregorian, and Huang taught the apparatus in which the article and method operates with [col.6, ll.6-31].

55. Claims 13, 19, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta as applied to claims 8, 14, and 20 above, and further in view of Foster, U.S. Patent 6026494.

56. In re claim 13, Datta discloses each and every limitation of the claim as discussed above in reference to claim 8. Datta did not discuss placing the communication adapter in an auto-sensing state in response to a resume message.

57. Foster discloses an article [col.1, ll.6-14] for placing a communication adapter [fig.2; Ethernet transceiver] in an auto-sensing [auto-negotiate] state in response to a resume message [power up after timer2 expires] [col.5, ll.32-62].

58. It would have been obvious to one of ordinary skill in the art, having the teachings of Datta and Foster before him at the time the invention was made, to modify the teachings of Datta to include the teachings taught by Foster, in order to obtain the article wherein the storage medium further comprises machine-readable instructions stored thereon for placing the communication adapter in an auto-sensing state in response to a resume message. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to control power consumption in a communication system [Foster: col.1, ll.6-14].

59. As to claim 19, Datta, and Foster taught the article; therefore, Datta and Foster taught the method in which the article operates with.

60. As to claim 25, Datta and Foster taught the article and method; therefore, Datta, and Foster taught the apparatus in which the article and method operates with [col.6, ll.6-31].

Conclusion

61. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited U.S. patent documents describe various implementations for a communication system with sleep mode capability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen
August 27, 2004

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